

Claims

- [c1] 1.A composition for treating a meat product, the composition comprising:
a phosphate compound in an amount of about 5 to about 50 parts by weight based on the total weight of the solids in the composition;
a protein compound in an amount of about 5 to about 70 parts by weight based on the total weight of the solids in the composition;
a carrageenan in an amount of about 5 to about 50 parts by weight based on the total weight of the solids in the composition; and
a hydrocolloid other than carrageenan in an amount of about 1 to about 15 parts by weight based on the total weight of the solids in the composition.
- [c2] 2.The composition according to Claim 1, wherein the carrageenan is selected from the group consisting of kappa- carrageenan, iota- carrageenan lambda- carrageenan, and combinations containing at least one of the foregoing carrageenans.
- [c3] 3.The composition according to Claim 1, wherein the protein comprises a vegetable protein, an animal protein, and combinations containing at least one of the foregoing proteins.
- [c4] 4.The composition according to Claim 1, wherein the protein is an isolated soy protein.
- [c5] 5.The composition according to Claim 1, wherein the carrageenan is kappa carrageenan.
- [c6] 6.The composition according to Claim 1, wherein the phosphate compound is selected from the group consisting of mono-basic, di-basic, and tri-basic orthophosphates, pyrophosphates polyphosphates, metaphosphates, and combinations containing one of the foregoing phosphates.
- [c7] 7.The composition according to Claim 1, wherein the hydrocolloid is a guar gum, a locust bean gum or a combination containing the locust bean gum and the guar gum.
- [c8] 8.The composition according to Claim 1, further comprising a native starch

a hydrocolloid other than carrageenan in an amount of about 1 to about 15 parts by weight based on the total weight of the solids in the composition.

- [c13] 13.A process of treating meat to reduce the occurrence of pale, soft, and exudative characteristics in the meat, the process comprising:
applying to the meat a brine solution in an amount effective to reduce or prevent the occurrence of the pale, soft, and exudative characteristics, wherein the brine solution comprises water; an alkali metal chloride salt in an amount of about 30 to about 80 parts by weight based on the total weight of the solids in the composition; a tripolyphosphate compound in an amount of about 5 to about 50 parts by weight based on the total weight of the solids in the composition; an isolated soy protein compound in an amount of about 5 to about 70 parts by weight based on the total weight of the solids in the composition; a carrageenan in an amount of about 5 to about 50 parts by weight based on the total weight of the solids in the composition; and a hydrocolloid other than carrageenan in an amount of about 1 to about 15 parts by weight based on the total weight of the solids in the composition.
- [c14] 14.The process according to Claim 13, wherein the meat is selected from the group consisting of poultry, pork, beef, and combinations containing at least one of the foregoing meats.
- [c15] 15.The process according to Claim 13, wherein the brine solution is applied by mixing an aqueous solution of the composition with the meat.
- [c16] 16.The process according to Claim 13, wherein the brine solution is applied by injection into the meat.
- [c17] 17.The process according to Claim 13, further comprising lowering the pH to below about 7.
- [c18] 18.A process for treating meat to reduce the occurrence of pale, soft, and exudative characteristics in the meat, comprising contacting the meat with a treatment solution having a pH greater than about 7, said solution comprising water; an alkali metal chloride salt in an amount of about 30 to about 80 parts by weight based on the total weight of the solids in the composition; a

phosphate compound in an amount of about 5 to about 50 parts by weight based on the total weight of the solids in the composition; a protein compound in an amount of about 5 to about 70 parts by weight based on the total weight of the solids in the composition; a carrageenan in an amount of about 5 to about 50 parts by weight based on the total weight of the solids in the composition; and a hydrocolloid other than carrageenan in an amount of about 1 to about 15 parts by weight based on the total weight of the solids in the composition, said treatment being conducted for a period of time effective to reduce an average freeze/thaw loss to less than 10%.

[c19]

19.The process according to Claim 15, wherein the meat is treated at a temperature of about 30 ° to about 40 ° Farenheight.